# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/960,337 | 09/24/2001 | Mutsumi Fujihara | 214295US2RD | 4635 |

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| EXAMINER |
|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 2176 | |

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | Application No. | Applicant(s) |
|---|---|---|---|
| ***Office Action Summary*** | | 09/960,337 | FUJIHARA ET AL. |
| | | Examiner | Art Unit | |
| | | Paul Nguyen-Ba | 2176 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *17 May 2005*.

2a)☒ This action is **FINAL**.    2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1 and 21-39* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 21-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date *9/24/2001*.
4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

## DETAILED ACTION

### *Notice to Applicant*

1.    This action is responsive to Applicant's Amendments and Remarks filed on 5/17/2005.

2.    Claims 1 and 21-39 are currently pending. Claims 1 and 30 are independent claims.

### *Claim Rejections - 35 USC § 103*

3.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.    Claims 1 and 21-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori

et al. ("Mori"), U.S. Patent No. 5,806,058, in view of Layden, U.S. Patent Application

Publication No. 2002/0065815.

**Independent Claims 1 and 30**

Mori teaches a data management method and computer readable storage medium for

*managing data having an instance of a unit of data, the instance comprising a cell and a façade,*

*the cell comprising managed data* (i.e. "field" → a cell is analogous to a field in database

management systems), *the facades* (i.e. "indices") *comprising rows* (i.e. "table" → in database

management systems all information is stored in the form of tables - tables consist of data

arranged in rows and columns.) *indicating correlation among a plurality of instances, the data*

*being logically arranged by a lexicon, pointers to the instances being formed in a context, the*

*instances storing the data and a data retrieval pattern, and addresses of the data retrieval*

*pattern being stored in the contexts and the rows and their relationships* (see Abstract; col. 2

lines 49-67 *et seq.*; col. 3 lines 28-54), comprising:

 *assigning different facades to each of plurality of storage regions that are discriminated*

*from each other by their addresses* (see Fig. 1 *item* 2 and Fig. 2; col. 3 lines 28-54 *et seq.*); and

 *registering the rows in the facades assigned to the storage regions that are designated by*

*the address values corresponding to the rows* (see col. 1 lines 4-55, specifically lines 10-21).

 Mori does not explicitly teach "forming rows corresponding to the contexts, the contexts

comprising address values referring to the storage regions, so that the rows are homologized to

each of the address values comprised in the contexts." However, Layden teaches forming entry

fields corresponding to records containing address values wherein a one-to-one homologized

correspondence exists between a field and the address of another data element (see [0032]) for

the purpose of eliminating redundant entries.

 Since Mori and Layden are both from the same field of endeavor, the purposes disclosed

by Layden would have been recognized in the pertinent art of Mori. It would have been obvious

at the time the invention was made to a person having ordinary skill in the art to modify the

teaching of Mori with the teachings of Layden to include forming rows corresponding to the

contexts, the contexts comprising address values referring to the storage regions, so that the rows

are homologized to each of the address values comprised in the contexts for the express

motivational purpose of eliminating redundant entries.

**Claims 21 and 31**

Mori teaches the data management method and computer readable storage medium with

respect to claims 1 and 30 as discussed above, but does not explicitly teach "the facades being

managed by sorting the rows with keys for determining a sorting order of the rows, contents of

the contexts that comprise the address values corresponding to the rows being used as the keys."

However, Layden teaches a sort index wherein contents of the contexts that contain the

address values can be used as keys (see Fig. 1). All key fields are sorted or indexed as the rows

are made into the field for the purpose of locating the desired entry without having to read all the

rows in the field (see [0029]). It would have been obvious at the time the invention was made to

a person having ordinary skill in the art to modify the teaching of Mori with the teachings of

Layden to include the facades being managed by sorting the rows with keys for determining a

sorting order of the rows, contents of the contexts that comprise the address values

corresponding to the rows being used as the keys for the motivational purpose of faster database

searching and queries.

**Claims 22 and 32**

Mori teaches the data management method and computer readable storage medium with

respect to claims 21 and 31 as discussed above, but does not explicitly teach designating keys for

determining the sorting order per row. However, Layden teaches that all key fields are sorted or

indexed as the rows are made into the field (see [0029]) for the purpose of at all times having an

ordered array which can quickly be searched using a search process.

It would have been obvious at the time the invention was made to a person having

ordinary skill in the art to modify the teaching of Mori with the teachings of Layden to include

that all key fields are sorted or indexed as the rows are made into the field for the motivational

purpose of at all times having an ordered array which can quickly be searched using a search

process.

### Claims 23, 24, 33, and 34

Mori does not explicitly teach wherein contents of storage regions designated by other

address values contained in the contexts that contain the address values corresponding to the

rows are used as the keys for determining the sorting order of the rows. However Layden

teaches an entity field containing an array of addresses, which can be structured as a key field

(see [0030]-[0032]) for the purpose of eliminating redundant rows.

It would have been obvious at the time the invention was made to a person having

ordinary skill in the art to modify the teaching of Mori with the teachings of Layden to include

an entity field containing an array of addresses, which can be structured as a key field for the

motivational purpose of eliminating redundant rows.

### Claims 25, 26, 35, and 36

Mori does not explicitly teach "the changing of the order of the rows according to need so

that the each key for the rows in the facades do not contradict with the sorting order while the

contents containing the address values of the storage regions designated by the address values are

updated."

However, Layden teaches that the order of rows can be changed (i.e. redundant rows may

be removed) for the purpose of defining the relationships among various fields, storage regions,

and addresses, to make sure that the indexes do not contradict with the sorting order (see [0032]).

It would have been obvious at the time the invention was made to a person having

ordinary skill in the art to modify the teaching of Mori with the teachings of Layden to include

the changing of the order of the rows according to need so that the each key for the rows in the

facades does not contradict with the sorting order while the contents containing the address

values of the storage regions designated by the address values are updated for the motivational

purpose of defining the relationships among various fields, storage regions, and addresses, to

make sure that the indexes do not contradict with the sorting order.


**Claims 27 and 37**

Mori teaches *retrieving facades with specified keys* (see Abstract and col. 1 lines 58 *et*

*seq.*).


**Claims 28, 29, 38, and 39**

Mori *teaches retrieving further facades corresponding to storage regions designated by*

*other address values contained in contexts that contain address values corresponding to rows*

*obtained by the preceding retrieval on other facades* (see col. 3 lines 28-54).

***Response to Arguments***

5.　　Applicant's arguments filed 5/17/2005 have been fully considered but they are not

persuasive for the reasons submitted above in the discussion of independent claims 1 and 30.

Specifically, the claimed structure of the data being managed, is the basic structure of database

management systems (DMS) in general, as further evidenced by the Mori reference:

　　*...managing data having an instance of a unit of data, the instance comprising a cell and*

*a façade, the cell comprising managed data* (i.e. "field" → a cell is analogous to a field in

database management systems), *the facades* (i.e. "indices") *comprising rows* (i.e. "table" → in

database management systems all information is stored in the form of tables - tables consist of

data arranged in rows and columns.) *indicating correlation among a plurality of instances, the*

*data being logically arranged by a lexicon, pointers to the instances being formed in a context,*

*the instances storing the data and a data retrieval pattern, and addresses of the data retrieval*

*pattern being stored in the contexts and the rows and their relationships* (see Abstract; col. 2

lines 49-67 *et seq.*; col. 3 lines 28-54).

6.　　Examiner thanks Applicant for pointing out Examiner's oversight on the IDS filed

September 24, 2001. The considered AW reference is now initialed on the IDS and submitted to

Applicant.

## *Conclusion*

7.     **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Paul Nguyen-Ba whose telephone number is (571) 272-4094.

The examiner can normally be reached on 11 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Heather Herndon can be reached on (571) 272-4136. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PNB

WILLIAM BASHORE
PRIMARY EXAMINER
7/24/2005